

REMARKS/ARGUMENTS

INTRODUCTORY COMMENTS:

In the Office Action under reply, claims 1-4, 10-13, 25, 36, 37, 69, and 70 stand rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 5,499,127 to Tsubota et al. ("Tsubota"). Applicants traverse the rejections for the reasons set forth below.

The Examiner has indicated that claims 39-68 are allowable. In addition, claims 5-9, 14-24, 26-35 and 38 are deemed allowable if rewritten to incorporate all limitations of the claims from which they depend. Under the heading of "*Allowable Subject Matter*" in the same Office Action, the Examiner has provided a statement of reasons for the indication of allowable subject matter. While applicants generally agree with the Examiner's statement, applicants have included herein a supplemental statement that sets forth their position regarding the allowable subject matter.

THE AMENDMENTS:

In the specification, the paragraphs beginning on page 4, line 5, and on page 26, line 8, have been amended to correct obvious typographical errors. In addition, the paragraphs beginning on page 18, line 23, and on page 29, line 23, have been amended to provide the serial numbers of an application that had not yet been assigned a serial number when the present application was filed. As these amendments are clerical in nature, no new matter has been introduced. Accordingly, entry of these amendments is proper and requested.

STATUS OF THE CLAIMS:

While the specification has been amended, all pending claims, i.e., claims 1-70, remain unchanged.

THE ANTICIPATION REJECTION OVER TSUBOTA:

Claims 1-4, 10-13, 25, 36, 37, 69, and 70 stand rejected as anticipated by Tsubota. In support of the rejection, the Examiner points generally to various drawings and cites various sections of Tsubota. For example, the Examiner states that FIGS. 11 and 12 together depict a substrate with an upper surface 3 and an elastic sheet 33, wherein the elastic sheet has a deflectable active area 34 and is immobilized with respect to the substrate at a minimum of two immobilization points. According to the Examiner, a pressure means is depicted in FIG. 19 that deflects the active area of the sheet. Furthermore, the Examiner cites column 3, lines 36-67, column 9, lines 3-40, column 18, lines 22-59, and FIG. 36 as containing teachings relating to the injection of liquid crystal or nitrogen into an apparatus. Additional sections of Tsubota are specifically cited in rejecting claims 10-13, 69, and 70.

In response, applicants point out a cited reference must disclose each and every element of a claim to anticipate the claim. *In re Spada*, 15 USPQ2d 1655 (Fed. Cir. 1990). Unless there is "identity of invention," such that all claim elements are disclosed in a single reference, there can be no anticipation under 35 U.S.C. §102. Here, as an initial matter, the Examiner has mischaracterized the overall disclosure of Tsubota. Tsubota is generally directed to liquid crystal display devices rather than to fluid flow control devices and methods. More specifically, Tsubota is directed to technology useful for maintaining the gap between two substrates that form display devices at a uniform thickness. While various drawings, e.g., FIGS. 19 and 37-43 in Tsubota depict the bowing or deflection of substrates suitable for use in display devices, the substrates are made from rigid materials such as glass (see column 7, lines 22-26).

In contrast, the rejected claims are generally directed to fluid flow control devices and methods that employ an elastic sheet. As discussed in the specification on page 9, lines 19-21, the term "elastic" in the pending claims is used in its ordinary sense. Because glass and other rigid materials are not ordinarily considered elastic, the bowing substrates of Tsubota do not qualify as the elastic sheet of the claims.

Turning to the specifics of the outstanding rejection, the Examiner has pointed to FIGS. 11 and 12 of Tsubota as depicting elements (a) and (b) of claim 1. Element (b) is an elastic sheet having an upper surface and an opposing lower surface, with the lower surface facing the upper surface of the substrate, wherein the elastic sheet (i) is immobilized with respect to the substrate at a minimum of two immobilization points, and (ii) has a deflectable active area at least partially contained between the immobilization points. Applicants disagree with the Examiner's characterization of FIGS. 11 and 12 and submit that these drawings do not depict or disclose an elastic sheet having a deflectable active area.

As discussed in column 6, lines 1-2, of Tsubota, FIG. 11 depicts a "cutout area" of an elastic sheet 33. That is, the item indicated by reference number 34 represents a cutout area or the absence of material in an area in the elastic sheet 33. In short, item 34 is a hole that extends through elastic sheet 33. In contrast, it is indicated on page 9, lines 14-15, of the subject application that the term "active area" as used in the claims "refers to a portion of an elastic sheet having a lower surface that is mobile with respect to the substrate." Since an active area requires the presence of a deflectable elastic material rather than the absence of material from an elastic sheet, the cutout area 34 of Tsubota does not qualify as the active area of the present application.

FIG. 12 of Tsubota also supports applicants' position. For the Examiner's convenience, applicants have reproduced FIG. 12 below with additional reference numbers that indicate the location of the previously unlabeled cutout areas 34 of the elastic sheet 33.

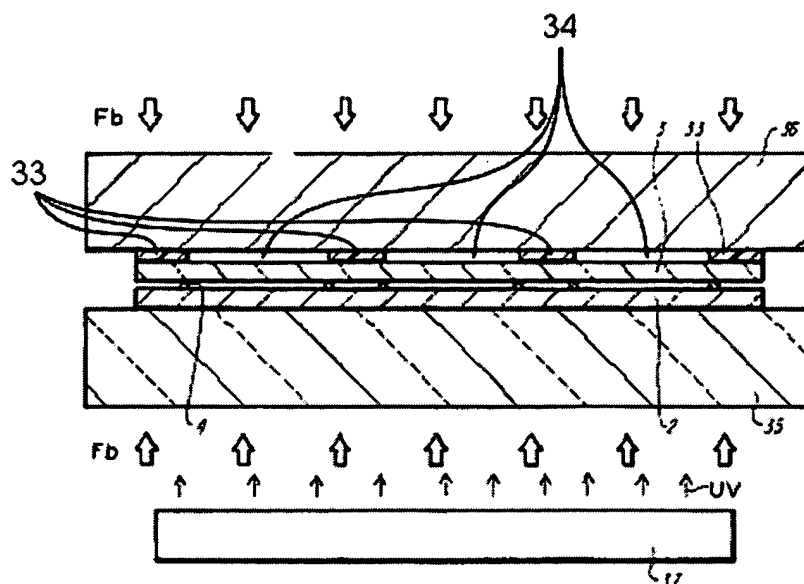


FIG. 12

Upon visual inspection of FIG. 12, it should be apparent that elastic sheet 33 is depicted having an upper surface in contact with upper surface plate 36 and a lower surface in contact with substrate 3. The lower surface of the elastic sheet 33 contacts the substrate 3 at four locations, and three cutout areas 34 are located between the contact locations. Each cutout area 34 represents the absence of material from the elastic sheet 33. Thus, assuming *arguendo* that it is possible to deflect a hole in an elastic sheet from a substrate surface, FIG. 12 shows that the cutout areas 34 of Tsubota are not deflectable from substrate 3.

Since Tsubota fails to disclose an elastic sheet that has a deflectable active area at least partially contained between immobilization points, the rejection was issued in error. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

THE EXAMINER'S REASONS FOR THE INDICATION OF ALLOWABLE SUBJECT MATTER:

The Examiner provides the following statement of reasons for the indication of allowable subject matter:

The references of record do not show or suggest a device which has a substrate with an upper surface, an elastic sheet having an upper surface and an opposing lower surface with the lower surface facing the upper surface of the substrate wherein an elastic sheet is immobilized with respect to the substrate at a minimum of two points and has a deflectable active area at least partially contained between the immobilization points, an actuation means for deflecting the active area of the sheet away from the upper surface of the substrate and where **the substrate has a rigidity [of] at least 10 time that of the elastic sheet.** (Emphasis added)

While applicants agree with the Examiner's characterization of the references of record, applicants nevertheless wish to point out that none of the allowed claims require a substrate that is at least 10 times as rigid as the elastic sheet. Similarly, except for claim 8, none of the claims that are allowable but for their dependence from a rejected claim is limited to devices or methods that require a rigidity ratio of 10:1 between the substrate and the elastic sheet. Accordingly, to the extent that the allowability of the claims is conditioned on a claim construction that incorporates such a rigidity ratio when the ratio is absent from the claims, applicants respectfully traverse.

CONCLUSION

For all of the above reasons, it is submitted that the pending claims define an invention that is patentable over the art. As the application should now be in condition for allowance, a prompt indication to that effect would be appreciated. If the Examiner has any questions concerning this communication, he is welcome to contact the undersigned at (650) 330-4912.

Respectfully submitted,

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